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Berkowitz, J.H.

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[New York]

[1916]

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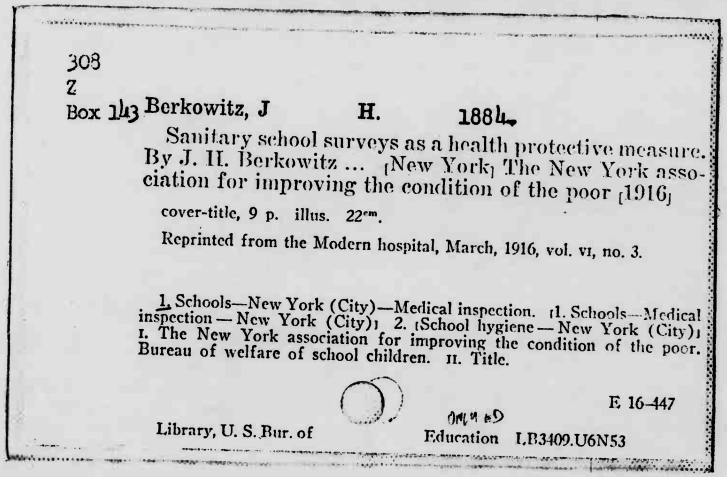

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# SANITARY SCHOOL SURVEYS AS A HEALTH PROTECTIVE MEASURE

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By J. H. BERKOWITZ.

REPRINTED FROM
THE MODERN HOSPITAL,
MARCH, 1916, VOL. VI, No. 3.

THE NEW YORK ASSOCIATION FOR
IMPROVING THE CONDITION OF THE POOR

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THE CONDITION OF THE POOR

Cornelius N. Bliss, Jr., President
Bailey B. Burritt, General Director

DEPARTMENT OF SOCIAL WELFARE
Donald B. Armstrong, M. D., Director

BUREAU OF WELFARE OF SCHOOL CHILDREN

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| Charles C. Burlingham, Chm. | Ward A. Holden, M. D. |
| Mrs. A. A. Anderson | Miss Mabel H. Kittredge |
| Leonard P. Ayres | Owen R. Lovejoy |
| George S. Brewster | Philip Van Ingen, M. D. |
| Cornelius G. Coakley, M. D. | Thomas D. Wood, M. D. |

105 East 22nd street, New York

# Sanitary School Surveys as a Health Protective Measure

BY J. H. BERKOWITZ,

Special Investigator, Bureau of Welfare of School Children, New York Association for Improving the Condition of the Poor.

## I

With the introduction of medical inspection in the public schools for the purpose of detecting diseases, so that contagion may be averted and physical defects requiring treatment removed, the realization has come of the need of likewise discovering and removing defects in school hygiene and sanitation which may have a deleterious effect on the health of the pupils.

Sanitary inspection, as it is carried on at present in most of the cities of the United States, is a perfunctory procedure. There are health and education laws which prescribe sanitary requirements for schools as well as other public buildings, and provide for periodic inspection. There are, however, no uniform laws and no universal standards. While the state laws, municipal health laws, or building codes, or some other regulation, may contain excellent provisions governing the structural features of a school building, they may be entirely silent on ventilation, heating, the care of the plant, or other sanitary provisions.

It would perhaps be impossible to fix the exact measure of the relationship between the child's health and the conditions which surround him in the school without taking into consideration individual predisposition to physical ills and home conditions. It may, however, safely be said that if poor conditions of hygiene and sanitation in the school do not positively hinder a child in its educational progress, favorable conditions are, on the other hand, decidedly helpful.

A clean, bright, well-aired classroom, a clean and airy playground and pleasing aspect of any part of the school plant with which the child comes in direct contact have a cheering influence, and such effect on the pupils' spirits cannot be overestimated as an aid to scholarship. Comfortable desks, blackboards upon which the writing may be seen without straining the eye or body, and comfortable temperature in the room—these are matters which not only tend to bodily comfort, but have a positive beneficial effect mentally as well.

INTENTIONAL SECOND EXPOSURE

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What, then, must these conditions be? To what extent should they be and are they determined and controlled by those responsible for the child's well-being while in school? What standard shall we follow and what ideal shall we strive to attain in so improving these conditions as to remove any possible danger that the school, while developing the child's mind, does so at the expense of his bodily health? The answers to these questions depend on what we know of existing conditions in the schools, and on the results of study and experiment on the part of those whose task it is to develop standards of excellence in these matters.

For these reasons it is necessary to have regular periodic inspection of school buildings, to be carried out according to well-defined methods, such inspections being in the nature of thorough surveys to cover all elements of sanitation, equipment, supervision, and care of the school buildings. Fixed standards must be known, and a definite method of procedure must be followed.

## II

The Bureau of Welfare of School Children of the New York Association for Improving the Condition of the Poor has undertaken to work out a system of school surveys, in the course of which it is aimed to accomplish the following:

1. Ascertain what are the sanitary conditions in a group of typical schools in New York city.

2. Ascertain what hygienic and sanitary features are dependent on construction, requiring modification to bring them into accord with present-day standards.

3. Ascertain what efforts are made by principals and teachers to insure the full benefit accruing to the children from the sanitary and hygienic provisions made.

4. Test the efficiency of janitorial staff in the maintenance of the school plant and the proper utilization of sanitary equipment.

5. To bring to the attention of the proper authorities such defects as can be remedied, but which might be overlooked through inadequate administrative provision for this kind of work, due to insufficient allowance of public funds for this purpose.

6. To evolve a score card for urban school surveys; this score card to represent the result of the practical application of all known standard tests for school hygiene and sanitation.



## III

As a preliminary to the more extensive survey, the bureau, in cooperation with the Bureau of Educational Hygiene of the Department of Education, made a survey of a large public school, with an enrollment of over 1,900 pupils, in one of the more congested sections of the city, which is typical of a large number of school buildings in New York. The survey was made primarily to test a set of inspection schedules formulated on the basis of standards laid down by recognized authorities on school architecture and sanitation. The survey served this purpose, and, in addition, disclosed some interesting facts, among which might be mentioned the following:

1. Conflict of authority between principal and janitor, because the latter is not, as he should be, the subordinate of and responsible to the principal directly.

2. Inadequate care of the school plant, due to the negligence of the janitor and his helpers in the matters of hygiene and sanitation.

3. Reckless exposure of children to elements injurious to physical well-being through the indifference and perhaps negligence, or even ignorance, on the part of some teachers as to the elements of school hygiene.

4. The remarkably rapid change in standards of school architecture and sanitation, as was indicated by the structural shortcomings in a building little more than a decade old.

5. Commendable efforts made by the school authorities to improve conditions, notably by the installation of sanitary equipment and otherwise to bring the old provisions as nearly as possible up to present-day requirements.

## IV

The quantitative results of the survey are perhaps of very little interest for the present purpose, and of little significance as indicating merely provisions made in one school. The matters which call for fuller consideration are those involving the utilization of available equipment which can be adapted and adjusted to serve the needs of pupils. Type and age of building do not necessarily enter into account in this, but rather the efficiency, interest, and intelligence of the personnel in the school.

1. DEFECTIVE HEATING.—It was not altogether surprising to find that more than 50 percent of the class rooms in the building surveyed were overheated, in view of the

reports of other investigations indicating this to be a fault generally found in many schools. The thermostat temperature control system was not in use. A glance at several of the thermostat indicators was sufficient to reveal the fact that these delicate instruments had been handled roughly, thus rendering them useless. Without official authorization, the janitor had abandoned the use of the system.

2. INSANITARY TOILETS.—Another indication of total failure to grasp the significance of sanitary regulation is

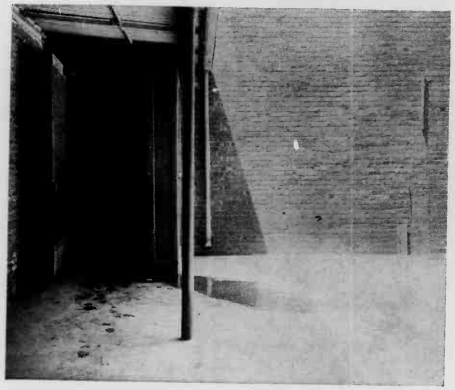

Fig. 1. Insanitary condition of boys' play-yard, which might be prevented by proper janitorial attention to flushing apparatus in toilet.

presented by the unsightly condition of the outer playground, in one corner of which is located the boys' toilet (Fig. 1). This condition, an index of matters within, was the result of either a break or obstruction in the flushing apparatus in the toilet, resulting in an overflow into the playground. This continued for several days at one time, and occurred again and again, so that in the course of very many observations, covering a period of over three months, this insanitary condition appeared almost continuously. Granted that the structure and equipment of this toilet are antiquated, it is nevertheless a fact that whenever adequate attention was bestowed on it, it presented no such objectionable aspect, thus proving that



watchfulness and care was all that was called for, and this much even new, up-to-date equipment will require for its proper upkeep.

3. HOUSEKEEPING.—The utter failure of those responsible for cleanliness and decency in the school to apply the most elementary precepts was evidenced by the collection of brooms, mops, slop pails, and other cleaners' implements displayed in one of the main corridors through which pupils and visitors must pass (Fig. 2). Directly across is a class room, the door of which must be kept

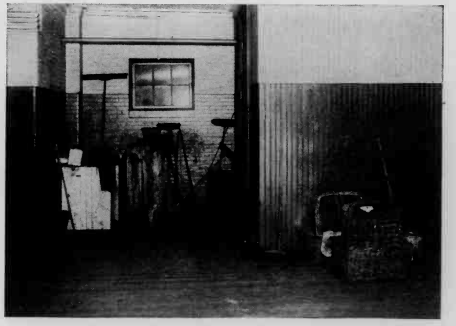

Fig. 2. An unsightly display fraught with danger to health.

open most of the time to insure proper ventilation. What an example of housekeeping to place before children! Incidentally, the children occupying the class room looking out on this exhibition were newly arrived immigrant children, constituting a special class for whom particular efforts must be made in upholding American ideals of cleanliness in relation to health. Does not this aggravate the offense?

4. THE GOOD AND THE BAD.—Three different attitudes may be said to be represented by the conditions found in the corridors of upper floors (Fig. 3). We have here proof of (1) the endeavor of the Department of Education to improve conditions, (2) the negligence of some teachers as regards sanitary conditions, (3) the carelessness of janitorial staff in the use and care of property placed under their supervision.

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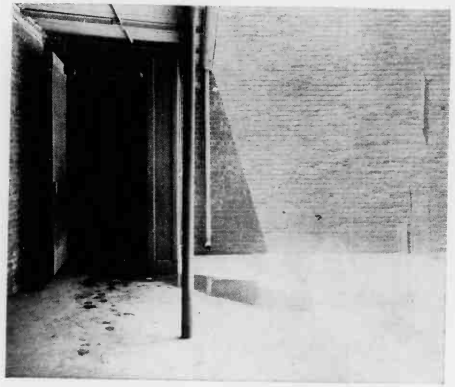

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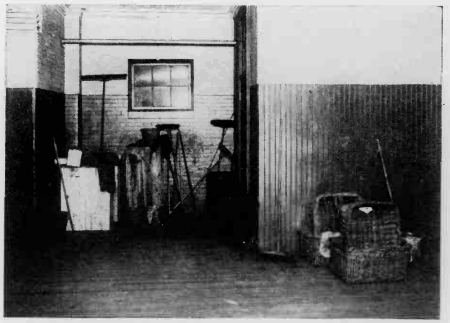

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The drinking water equipment shown in Fig. 3 was originally a washbasin and also part of the drinking water provision in the days of the common drinking cup. Sanitary bubbling heads have been fitted over the basin, thus providing drinking facilities for the children in class rooms on upper floors. This has been done on the upper floors in the new wing of the building, thus affording easier access than to the main equipment on the ground floor.

The floor here has been found constantly wet, owing to the spilling of water by children sent by the teachers to moisten sponges and washrags and to fill basins for the

Fig. 3. Sanitary drinking fountains—an improvement effected by the school authorities; wet, slippery floor and unclean sink due to negligence of those using the equipment.

purpose of cleaning the blackboards. A little watchfulness on the part of the teachers would easily obviate this condition, which is as perilous to life and limb as it is unhygienic and unsightly.

The trough and faucets are fitted within a closet provided with an upward sliding door, so that it may be kept closed when not in use. During many weeks of observation it was never found closed. At the same time the condition of closet, trough, and floor has always indicated that the washcloths and mops here prepared for cleaning other parts of the building were seldom, if ever, used here.

5. Failure to Protect Children's Eyes.—In no other respect is the teacher's responsibility for the physical well-



being of the pupils better defined than with reference to the protection of eyesight. Posture is important, of course, and the proper adjustment of desks and seats is a controlling factor in maintaining it. Eyestrain is closely associated with incorrect posture, and likewise caused by poor seating arrangements.

Height of desk and seat, distance from each other, distance from blackboard, etc., are some of the factors to be considered in relation to eyesight. The prevention of glare from excessive light and reflective surfaces is of the utmost importance, and yet perhaps the easiest to attain.

Fig. 4. Torn window shades, making uncontrollable the glare which is ruinous to children's eyes.

The proper means being provided, it rests entirely with the teacher. Perhaps the function of window shades and their usefulness are not fully appreciated, but teachers should know that glare and intense direct light cause eye fatigue. This is particularly harmful to the immature and highly susceptible eyes of children.

Unfortunately, in most of the class rooms surveyed the testimony found (Fig. 4) is against teachers and others responsible for the welfare of the pupils. Torn, unworkable window shades, particularly in class rooms with an unobstructed exposure to the rays of the sun, are a menace to children. Aside from the necessity of proper manipulation of shades for the regulation of light, the simple obligation is imposed on the teacher to promptly report

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The school authorities can be expected to correct defects only if they are brought to their attention, and the

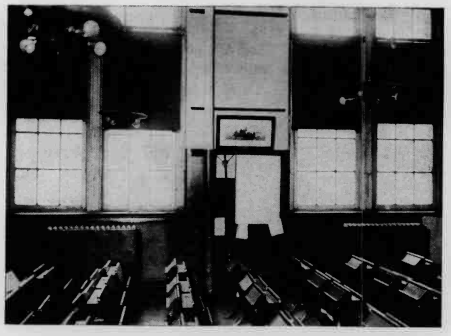

Fig. 5. An orderly room, light properly regulated and window shades in good order, in consequence of bringing former defects to the attention of school authorities.

improvement shown in this instance (Fig. 5) might have been long deferred if the matter had continued to rest entirely with teachers and janitors.

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The conclusions drawn from the survey, as a whole, are too many and too far-reaching to be discussed in a brief magazine article. On the basis of the questions here considered, the following conclusions may be stated:

1. It is necessary to establish by broader survey what are sanitary conditions in public schools.

2. It is essential to develop by practical application standards and methods for the measurement of quantitative as well as qualitative conditions of school hygiene and sanitation.

3. Improvements brought about in any individual school surveyed, while only incidental, are no less important than the larger results sought.

4. The qualifications of principals, teachers, and janitors should not be considered adequate without a knowledge of school sanitation principles and the ability to apply them through prophylactic measures.



## VI

To the credit of the Bureau of Educational Hygiene and the Bureau of Buildings of the Department of Education, it must be stated that conditions of deterioration and neglect found in the school surveyed have been corrected as far as budgetary allowance would permit for the present.

Enough has been accomplished and data of a sufficiently suggestive character have been secured to justify the Bureau of Welfare of School Children, in cooperation with the above-mentioned divisions of the Department of Education, to proceed with the plan of extensive school surveys.

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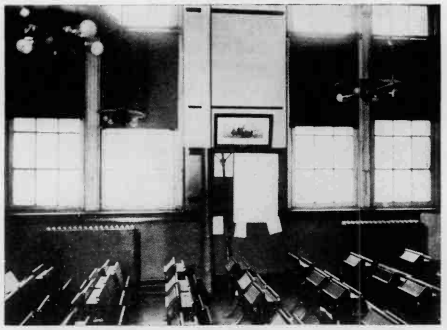

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